

Appln. No. 10/760,035  
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Reply to Office action mailed March 6, 2009  
Amendment dated July 22, 2009

### **AMENDMENTS TO THE DRAWINGS**

Applicants respectfully request entry into the Application of a new drawing sheet containing new Fig. 64. Support for the subject matter of Fig. 64 is discussed in the Remarks. Applicants respectfully submit that Fig. 64 does not add new matter.

Attachment: One new drawing sheet containing Fig. 64.

## **REMARKS**

Claims 22-34, 36-38, 54-59, and 78-133 are pending in the Application. Claims 22-34, 36-38, 54-59, 78-95, and 122-129 were rejected, claims 96-121 have been withdrawn by the Office, and claims 130-133 were objected to in the Office action mailed March 6, 2009. Claims 22, 30, 54, and 78 are independent claims. Claims 23-29, 87-89, 122, and 123, claims 31-34, 36-38, 90-92, 124, and 125, claims 55-59, 93-95, 126, and 127, claims 79-86, 128, and 129 depend, respectively, from independent claims 22, 30, 54, and 78.

Applicants respectfully request reconsideration of claims 22-38, 54-59, 78-95, and 122-129, in view of the amendments set forth above, in light of the arguments that follow.

Applicants appreciate having had the opportunity to discuss the Application with Examiner Brian S. Roberts during telephone calls on June 01, 2009 and July 13, 2009. During the call of June 1, 2009, Examiner Roberts clarified an erroneous reference to "claim 1" of the Application on page 3 of the instant Office action as a typographical error, which was intended to identify "claim 22." Applicants' Representative asked whether, in the absence of any rejections over cited art under 35 U.S.C. §102 or §103, the claims were allowable if all of remaining rejections of the instant Office action were overcome. Examiner Roberts confirmed that the claims would be allowed if the rejections and objections of the instant Office action are overcome. During the call of July 13, 2009, Examiner Roberts clarified the grounds for the rejection of claim 78 under 35 U.S.C. §112, second paragraph.

The Applicants note that a goal of patent examination is to provide a prompt and complete examination of a patent application.

It is **essential** that patent applicants obtain a prompt yet complete examination of their applications. Under the principles of compact prosecution, each claim should be reviewed for compliance with every statutory requirement for patentability in the initial review of the application, even if one or more claims are found to be deficient with respect to some statutory requirement. Thus, USPTO personnel should state all reasons and bases for rejecting claims in the

first Office action. Deficiencies should be explained clearly, particularly when they serve as a basis for a rejection. Whenever practicable, USPTO personnel should indicate how rejections may be overcome and how problems may be resolved. **A failure to follow this approach can lead to unnecessary delays in the prosecution of the application.**

M.P.E.P. §2106(II) (emphasis added).

As such, the Applicants assume, based on the goals of patent examination noted above, that the current Office Action sets forth “all reasons and bases” for rejecting the claims.

Applicants respectfully note that no claims are substantively amended by this response. Therefore, no new issues have been raised which would necessitate a new search.

### **Objections to Drawings**

The drawings were objected to under 37 C.F.R. 1.8(a). The Office states, in part, at page 3:

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the portable terminal device of claim 1 comprising all claimed components including the claimed second transceiver must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

As an initial matter, Applicants respectfully note that there is no claim 1 pending in the Application and that, as previously noted, the Examiner has confirmed that the Office intended to identify claim 22.

Applicants have added a new drawing sheet containing new Fig. 64 which illustrates the elements of claim 22. Support for the elements of Fig. 64 and the elements of claim 22 is discussed below. Applicants respectfully submit that no new matter is added by new Fig. 64.

## **Objections to Claims**

The Applicants express appreciation to the Office for detecting that a claim with number "35" was missing from the Application. Applicants have added a claim label for a claim 35, and status of "Cancelled", as shown above. No actual claim text has been added. Applicants respectfully submit that this change to the listing of claims is in accordance with 37 C.F.R. §1.126, in that it preserves the original numbering of the claims. Applicants respectfully request that the Examiner contact Applicants' Representative identified below, should there be any question regarding this change. Applicants respectfully submit that the objection to the claims is overcome.

Claims 130-133 were objected to as being dependent on withdrawn claims 96 and 109. Applicants have updated the status of claims 130-133 shown in the "Listing of Claims" to indicate that claims 130-133 are "Withdrawn". Applicants respectfully submit that this change does not add new matter, and that the objection to claims 130-133 is overcome.

## **Rejections of Claims**

Claims 22-34, 36-38, 54-59, 78-95, and 122-129 were rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. Claims 54-59, 78-86, 93-95, and 126-129 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicants respectfully traverse the rejections for the reasons set forth during prosecution, and further for the reasons that follow.

### **I. Claims 22-34, 36-38, 54-59, 78-95, And 122-129 Are In Compliance With 35 U.S.C. §112, ¶1**

Claims 22-34, 36-38, 54-59, 78-95, and 122-129 were rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. Applicants respectfully traverse the rejection. The Office asserts, in part, at page 5:

The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With specific regard to independent claim 22, the Office states, in part, at page 5:

In claim 22 lines 13-15, the limitation "a second receiver supporting a short range wireless communication link, the portable terminal device transmitting, via the wireless packet network, digital voice packets created using digitized voice information received by the second receiver" was not described in the original disclosure, and thus constitutes new matter.

Claim 22 recites "a portable terminal device" that comprises "a second receiver supporting a short range wireless communication link, the portable terminal device transmitting, via the wireless packet network, digital voice packets created using digitized voice information received by the second receiver." Applicants respectfully submit that claim 22 is described in the original disclosure, does not constitute new matter, and is in compliance with 35 U.S.C. §112, first paragraph.

Applicants respectfully note that claims 30, 54, and 78 recite similar features and are rejected for similar reasons. Applicants respectfully traverse the rejection of claim 22, for at least the following reasons.

Initially, Applicants respectfully submit that the Specification describes, in part, at page 28, lines 4-15:

The access points 15 may communicate with each other via hardwired links, such as Ethernet, RS232, etc., or via wireless (radio frequency) links. A plurality of roaming terminal devices, such as a roaming computing device 20, participate in the premises LAN of the hierarchical communication network 10 to exchange information with: 1) other roaming computing devices; 2) the data base server 16; 3) other devices which might be associated with data base server 16 (not shown); and 4) any other devices accessible via the premises LAN (not shown). A roaming computing device can be, for example, a hand-held

computer terminal or vehicle mounted computer terminal  
(vehicle terminal).

Therefore, the Specification discloses a plurality of “roaming terminal devices” such as a “roaming computing device 20” that participate in a “premises LAN”. It further discloses that a “roaming computing device” may be a “hand-held computer terminal or vehicle mounted terminal (vehicle terminal).” Thus, Applicants respectfully submit that the Specification provides the needed support for a “portable terminal device, as claimed.” An illustration of the “portable terminal device” recited by claim 22 and supported by the Specification is shown in new Fig. 64.

Applicants respectfully submit that the Specification further discloses, for example in describing Fig. 1a at page 31, line 17 to page 32, line 12:

The peripheral LAN replaces hardwired connection between a roaming computing device and associated peripherals. In a typical configuration, a peripheral LAN 20 will consist of one or more peripherals slaved to a single master roaming computing device, although multiple master roaming computing devices are possible. Peripheral devices may be printers, code scanners, magnetic card readers, input styluses, etc.

Each of the peripheral devices 22 has a built-in radio transceiver to communicate with the roaming computing devices 20. The roaming computing devices 20 are configured with built-in radio transceivers capable of communicating on both the peripheral and premises LAN. The access points 15 may be configured with radio transceivers only capable of communicating in the premises LAN. In alternate embodiments, as described below, the access points 15 might instead be configured to participate on both the premises and peripheral LANs.

(emphasis added)

Therefore, the Specification teaches that the “roaming computing device 20” participates wirelessly in both a “peripheral LAN” and a “premises LAN.” The Specification explains, for example at page 29, line 8 to page 30, line 6 that a “peripheral LAN” and a “vehicular LAN” are two types of “spontaneous LANs” (local area networks”:

An exemplary spontaneous LAN involves the use of peripheral devices as illustrated in Fig. 1A. Although bulk data transfer destined for a peripheral device 23, such as a printer, from the roaming computing device 20 might be communicated through the premises LAN, a more direct interconnection proves less intrusive, saves power, and offers a lower cost solution. Specifically, instead of communicating through the premise LAN, the roaming computing device 20 needing to print: 1) identifies the presence of an available printer, the peripheral device 23; 2) establishes an RF link (binds) with the peripheral device 23; 3) directly begins transferring the bulk data for printing; and 20 a) lastly, when the roaming terminal finishes the transfer, the spontaneous LAN with the peripheral device 23 terminates. A spontaneous LAN created between the computing devices and peripheral devices is herein referred to as a peripheral LAN. Other types of spontaneous LANs, such as vehicular LANs, are also possible. Embodiments described below identify vehicular LANs and wide area radio networks (WANs) which are part of the hierarchical communication system according to the present invention.

(emphasis added)

In addition, the Specification discloses, for example at page 189, lines 9-16, that:

For example, such a situation may arise when a portable terminal desires to operate on a shorter range vehicular LAN and detaches from a premises LAN. The portable terminal may be required by the protocol of the premises LAN to establish active communication on the premises LAN to permit the radio unit 15 to inform the premises LAN that it is detaching and can only be accessed through the vehicular LAN.

Applicants respectfully submit, therefore, that the Specification discloses that a “portable terminal” may participate in at least two wireless local area networks, a “premises LAN (local area network)” and “shorter range vehicular LAN,” which is a type of “spontaneous LAN”. Thus, Applicants’ disclosure provides the required support for a portable terminal that communicates wirelessly over two wireless networks.

Applicants respectfully submit that the Specification discusses the use of multiple transceivers in a single terminal, for example with regard to Fig. 30 that “illustrates the

functionality of RF transceivers built in accordance with the present invention,” and teaches the use of at least two “RF transceivers” stating, for example, at page 151, line 3 to page 153, line 6:

Fig. 30 is a block diagram illustrating the functionality of RF transceivers built in accordance with the present invention. Although preferably plugging into PCMCIA slots of the computer terminals and peripherals, the transceiver 3110 may also be built-in or externally attached via available serial, parallel or ethernet connectors for example. Although the transceivers used by potential peripheral LAN master devices may vary from those used by peripheral LAN slave devices (as detailed below), they all contain the illustrated functional blocks. In particular, the transceiver 3110 contains a radio unit 3112 which attaches to an attached antenna 3113. The radio unit 3112 used in peripheral LAN slave devices need only provide reliable low power transmissions, and are designed to conserve cost, weight and size. Potential peripheral LAN master devices not only require the ability to communicate with peripheral LAN slave devices, but also require higher power radios to also communicate with the premises LAN. Thus, potential peripheral LAN master devices and other non-peripheral LAN slave devices might contain two radio units 3112 or two transceivers 3110 -- one serving the premises LAN and the other serving the peripheral LAN -- else only contain a single radio unit to service both networks.

In embodiments where cost and additional weight is not an issue, a dual radio unit configuration for potential peripheral LAN master devices may provide several advantages. For example, simultaneous transceiver operation is possible by choosing a different operating band for each radio. In such embodiments, a 2.4GHz radio is included for premises LAN communication while a 27 MHz radio supports the peripheral LAN. Peripheral LAN slave devices receive only the 27 MHz radio, while the non-potential peripheral LAN participants from the premises LAN are fitted with only the 2.4GHz radios. Potential peripheral LAN master devices receive both radios. The low power 27 MHz peripheral LAN radio is capable of reliably transferring information at a range of approximately 40 to 100 feet asynchronously at 19.2 KBPS. An additional benefit of using the 27 MHz frequency is that it is an unlicensed frequency band. The 2.4 GHz radio provides sufficient power (up to 1 Watt.) to communicate



with other premises LAN devices. Another benefit of choosing 2.4 GHz or 27 MHz bands is that neither requires FCC licensing. Many different frequency choices could also be made such as the 900 MHz band, UHF, etc. Alternatively, infrared communication may be used in situations where line of sight may be achieved between devices on the network.

(emphasis added)

Thus, the Specification clearly teaches the use in a “portable terminal” of at least two radio frequency transceivers that may be used on the “premises LAN” and “spontaneous LAN/”peripheral LAN”. Therefore, Applicants respectfully submit that the Specification provides the necessary support for the claimed “transmitter,” “receiver,” and “second receiver” of Applicants’ claim 22. These elements are illustrated in new Fig 64 as “RF transceiver A 6401” and “RF transceiver B 6403”. Applicants respectfully submit that it is well known to those of ordinary skill in the relevant art that an “RF transceiver” comprises receiver and transmitter circuitry.

In addition, Applicants respectfully submit that the Specification teaches, for example, at page 135, line 12 to page 136, line 5 that the “spontaneous LAN” is a relatively lower power, short range LAN (when compared to the “premises LAN”).

Because roaming computing devices, such as the handheld computer terminal 3007, cannot be directly hardwired to the backbone LAN 3019, they are fitted with RF transceivers. To guarantee that such a network device can directly communicate on the premises LAN with at least one of the access points 3015 and 3017, the fitted transceiver is selected to yield approximately the same transmission power as do the access points 3015 and 3017. However, not all roaming network devices require a direct RF link to the access points 3015 and 3017, and some may not require any link at all. Instead, with such devices, communication exchange is generally localized to a small area and, as such, only requires the use of relatively lower power, short range transceivers. The devices which participate in such localized, shorter range communication form spontaneous LANs.

(emphasis added)

Thus, the Specification provides support for a “spontaneous LAN” (“peripheral LAN” or “vehicular LAN”) of “lower power” and “short range”. Applicants respectfully

submit that the Specification therefore provides the required support for the claim feature “a second receiver supporting a short range wireless communication link,” as claimed.

In addition, the Specification teaches, for example at page 112, lines 19 to page 113, line 3, that a “spontaneous LAN” (which includes at least “peripheral LANs” and “vehicular LANs”) may be used for the communication of voice, video, and telemetry:

Moreover, the use of scheduled transmission in a premises LAN is likely to differ from use in a spontaneous LAN. For example, unlike the premises LAN, in the spontaneous LAN, applications such as massaging [sic] and two way (i.e., full-duplex) voice communications may only occasionally be used, whereas video transmission and telemetry exchange may be prevalent.

(emphasis added)

The cited portion of the Specification discloses use of a “spontaneous LAN” for at least two-way, full duplex voice communication, video transmission, and telemetry. Therefore, Applicants respectfully submit that the Specification provides support for a “spontaneous LAN,” which as shown above includes “peripheral LANs” and “vehicular LANs,” that supports full-duplex voice communication, video transmission, and telemetry, in addition to support for a “premises LAN,” previously discussed above.

Applicants respectfully submit that the Specification also teaches, at page 213, lines 10-13, that “portable computer terminal 4664” participates in the “premises network [LAN]”. Further, the Specification teaches, for example at page 200, lines 9-21, that “portable terminal 4667” also participates in the “premises network”. In addition, the Specification teaches, for example at page 216, line 11 to page 217, line 20, that “portable terminals 4664 and 4667” are configured to receive and reproduce voice signals:

In addition, the terminals 4664 and 4667 are configured to receive keyed, voice and pen input. Other types of input such as video or thumbprint image capture might also be added. The terminals 4664 and 4667 can also be configured with code reading/image capturing devices, or be configured to receive input from external code reading/image capturing devices (via tethering or low power

wireless links). Each terminal also provides voice and LCD (liquid crystal display) output for the user. Thus, it can be appreciated that there are many types of data to be delivered to and from the terminals 4664 and 4667. The data may take on the forms of keyed or penned in command information, penned images or signatures, captured images of 2-D codes, signatures, etc. and voice signals, for example.

Each type of data handled by the terminals 4664 and 4667 places specific requirements on the communication network. For example, when communicating voice information, a communication channel or link providing acceptable real time voice delivery may be required. Dedicated bandwidth may be reserved for such communications through the spanning tree network illustrated, or established via a cellular link with the access device 4655. Moreover, if the network conditions are favorable, dedicated bandwidth need not be provided at all (see, e.g., discussion regarding Fig. 55 below).

Cellular radios may be built into the terminals 4664 and 4667 (via PCMCIA slots, for example) or via tethered cellular phones. Similarly, an access device can be configured with a cellular radio to provided cellular service to mobile terminal devices via either dedicated or time-shared wireless bandwidth through the spanning tree, for example.

(emphasis added)

As shown above, the Specification teaches, for example at page 217, lines 14-16, that in addition to the two transceivers previously discussed, the “portable terminal 4664” and “portable terminal 4667” may be equipped with a “cellular radio”. Thus, the Specification teaches that such “portable terminals” may be equipped with three transceivers (i.e., one each for the “premises LAN”, “spontaneous LAN/”peripheral LAN”, and for “cellular service”).

Applicants respectfully submit that the Specification further teaches, for example at page 12, lines 1-10, that voice signals are communicated over the disclosed networks as “voice packets”:

The stationary network device also has a buffer that stores **digital voice information, received from the wireless network**, for a predetermined queuing period before converting it into an analog voice stream. After

conversion, the stationary network device delivers the analog voice stream to the telephone. In addition, the stationary network device **converts analog voice streams received from the telephone into voice packets for delivery via the hardwired and wireless networks to a selected one of the mobile network devices.**

(emphasis added)

The cited portion of the Specification discloses that “mobile network devices” (“e.g., portable terminals”) communicate “voice information” over the wireless networks in “voice packets” of “digital voice information”. The Specification further makes it clear that “voice signals” are communicated over the wireless pathways of the “premises network” as “voice packets”, for example at page 258, lines 6-15, where the Specification states:

Voice signals are similarly routed. Voice or other audio signals (herein "voice signals") traveling through the wireless pathways of the premises network typically flow in a digital, packetized form (herein "voice packets"). However, voice signals in an analog form may also be modulated and transmitted in a non-packetized form such as with communication between the wireless phone 5527 and the access device 5507. Voice signals travel through the wired backbone LAN 5503 are also packetized, i.e., they travel in voice packets.

(emphasis added)

Thus, Applicants respectfully submit that the Specification provides the necessary support for the claimed feature “transmitting, via the wireless packet network, digital voice packets.”

In addition, the Specification explains that its discussion of Fig. 55a, which begins at page 254 of the Application, provides additional details about communications activities of “portable terminals” similar in some ways to “terminal 4667” of Fig. 46b, stating, for example at page 218, line 17 to page 219, line 5:

For example, in an oversimplification of the process described in more detail below in reference to Fig. 55a, the access device 4665 receives a communication from the terminal 4667. The communication takes the form of a requested link for voice - signal data destined for the

computer 4651. In response, the access device 4665 consults its routing table, determines that voice data can take one of two pathways: through either a cellular radio or WAN route to the access device 4655. In response, the access device 4665 delivers the communication route options to the terminal 4667 for user and/or software consideration.

Thus, the Specification explains that Fig. 55a describes additional aspects of communication activities of a “portable terminal” such as, for example, “terminal 5523” of Fig. 55a that is similar in some respects to “terminal 4664” and “terminal 4667” of Fig. 46b. The Specification describes, for example at page 263, lines 1-10 with respect to Fig. 55a, that a “mobile terminal 5523” (that participates in the “premises network”) contains the needed functionality to convert digitized voice information to and from analog form.

The access device 5509 also receives the voice stream from the telephone 5563 and begins converting it through an analog to digital conversion process into a sequence of 15 voice packets. **As the voice packets are generated, they are routed toward the mobile terminal 5523. Upon receipt of the voice packets, the mobile terminal 5523 queues up the packets then performs a digital to analog conversion process to generate a voice stream. The mobile terminal uses the generated voice stream to reproduce (via a speaker) the voice which originated at the telephone 5525.** Further detail regarding this process can be found below.

(emphasis added)

Thus, the Specification provides the necessary support for a “portable terminal” (e.g., “mobile terminal 5523”) that communicates wirelessly over “premises [local area] network (LAN)” (i.e., a “wireless packet network”) and contains the necessary functionality to convert analog voice signals to digitized voice data in voice packets, and voice packets to analog voice signals.

Applicants respectfully submit that the Specification teaches, for example at page 263, lines 1-10:

In the exemplary illustration of Fig. 55a, the circuitry for converting voice signals between the voice stream and voice packet forms, hereinafter "conversion circuitry", can be found in the telephone access devices 5519 and 5577, mobile terminals 5521, 5523, 5555 and 5581, computer 5517, telephone 5525 and access devices 5507, 5509, 5511 and 5553. Similarly, the circuitry for handling basic call setup and processing, hereinafter "call processing circuitry", can be found in the access devices 5507 and 5509 and the telephone access devices 5519 and 5577.

Thus, the Specification teaches that "conversion circuitry" in a portable terminal that supports "converting voice signals between the voice stream and voice packet forms" can be found in "mobile terminals 5521, 5523, 5555, 5581" and "telephone 5525", which illustrated in Fig. 57. In addition, the Specification also teaches, for example at page 291, lines 11-13, that Fig. 58 is a "schematic block diagram which illustrates the implementation of one embodiment of the conversion circuitry within the telephone 5525 of Figs. 55 and 57." Therefore, Applicants respectfully submit that the Specification at least teaches that "mobile terminal 5523", among other portable terminals, may contain equivalents of the "conversion circuitry" of Fig. 58, which includes a "microphone 5805", "speaker 5807", "microphone/phone processing 5809", "D/A conversion 5815", "A/D conversion 5817", "control processing 5801", "queue time buffer 5813", and "output buffer 5819". Thus, at least the cited portion of the Specification provides the required support for a "portable terminal" that comprises any of a "microphone," a "speaker," "microphone/phone processing," "D/A conversion", "A/D conversion", "control processing", a "queue time buffer", and an "output buffer." The elements of the "conversion circuitry" disclosed in the portions of the Specification identified above and recited by claim 22 are illustrated in new Fig. 64. Thus, these elements of Fig. 64 do not add new matter.

Applicants respectfully submit that the Specification discloses, for example at page 123, line 20 to page 124, line 6, that participants on the "peripheral LAN" communicate with the "premises LAN" through certain other devices:

Although all participants in a peripheral LAN might also be configured to directly participate in the premises

LAN, the tradeoff in cost, power usage and added complexity often weighs against such configuration. Even so, participants within a peripheral LAN can be expected to function in a hierarchical manner, **through a multiple participating device**, with the premises LAN. Thus, the use of a much simpler, lower-power transceiver and associated protocol may be used in the peripheral LAN.

(emphasis added)

Thus, the Specification discloses a “multiple participating device” able to communicate on both the “premises LAN” and the “peripheral LAN” that allows devices on one wireless network (the “peripheral LAN”) to communicate through it with a second wireless network (the “premises LAN”). Therefore, Applicants respectfully submit that the Specification provides the needed support for “transmitting, via the wireless packet network, digital voice packets created using digitized voice information received by the second receiver [on another wireless network],” as claimed.

Therefore, for at least the reasons set forth above, Applicants respectfully submit that, contrary to the assertion by the Office, the portion of claim 22 that recites “a second receiver supporting a short range wireless communication link, the portable terminal device transmitting, via the wireless packet network, digital voice packets created using digitized voice information received by the second receiver” was described in the original disclosure of the Application at filing, does not constitute new matter, and that this aspect of claim 22 is in compliance with 35 U.S.C. §112, first paragraph.

Further with respect to claim 22, the Office states, in part at page 5:

Furthermore, in lines 16-22, the limitation “wherein the portable terminal device evaluates a message wirelessly received from the base station and sends to the base station an indication of a data rate based on the evaluation; and wherein the portable terminal device receives digital voice packets transmitted by the base station at a data rate selected by the base station based upon the indication of a data rate” was not described in the original disclosure, and thus constitutes new matter.

As an initial matter, Applicants respectfully submit that the portion of claim 22 cited by the Office was added by amendment in the Response filed June 23, 2008, and was not rejected under 35 U.S.C. §112, first paragraph, in the next Office action, mailed October 14, 2008.

Claim 22 recites “a portable terminal device” wherein the portable terminal device “evaluates a message wirelessly received from the base station and sends to the base station an indication of a data rate based on the evaluation;” and wherein the portable terminal device “receives digital voice packets transmitted by the base station at a data rate selected by the base station based upon the indication of a data rate.” Applicants respectfully submit that this aspect of claim 22 was described in the original disclosure of the Application, does not constitute new matter, and is in compliance with 35 U.S.C. §112, first paragraph.

Applicants respectfully note that claims 30, 54, and 78 recite similar features and are rejected for similar reasons. Applicants respectfully traverse the rejection of claim 22, for at least the following reasons.

As an initial matter, Applicants respectfully submit that the Specification teaches, for example at page 27, lines 13-15, that a “premises LAN” consists of an infrastructure network comprising radio base stations, i.e., wireless access points 15. The Specification also refers to “access points” and “access servers” as “access devices”. See Application at page 28, lines 1-3. In addition, the Specification discloses, for example at page 39, lines 17-19, that the term “control point device” is also used to refer to an “access point” such as “access point 15” of Fig. 1 of the Application.

Applicants respectfully submit that the Specification also teaches that the “control point device” communicates wirelessly with “portable terminal devices” using an “access interval” having a “sync header” and a “poll”, generated by the “control point device.” *Id.* at page 39, lines 7-16. A portion of the transmission by the “control point device” may be used as a “test pattern”. *Id.* at page 69, lines 11-12. That portion may be a “header”. *Id.* at page 75, lines 7-9. Further, the Specification states, at page 69, lines 12-16, that “[t]he Poll recipient evaluates signal quality based on the high data rate test pattern,



Received Signal Strength Indicator, and other parameters to determine whether to transmit a fragment at the high rate or the low rate.” (emphasis added) Therefore, Applicants respectfully submit that the Specification teaches that recipients of the “poll” evaluate signal quality of the wirelessly received message. Other messages sent by the “control point device” may also be used by the message recipient for evaluation. *Id.* at page 70, lines 10-15. Applicants respectfully submit, therefore, that the Specification does disclose “wherein the portable terminal device evaluates a message wirelessly received from the base station,” as recited by claim 22.

In addition, Applicants respectfully submit that the Specification teaches that the recipient (e.g., the “portable terminal device”) determines a data rate at which to transmit a message to the “control point device” based upon the evaluation of the wirelessly received message. *Id.* at page 69, lines 15-16. In one embodiment, the recipient then sends a message to the “control point device” at a data rate determined based on the evaluation of the message wirelessly received from the “control point device.” *Id.* at page 69, lines 15-16. In another embodiment, the recipient sends a message to indicate communication at a higher rate is possible. *Id.* at page 75, lines 9-12. In yet another embodiment, the recipient responds to a poll to indicate that sessions communications should take place at a lower (e.g., fall back rate) standard rate. *Id.* at page 70, lines 16-18. Applicants respectfully submit that, in any case, as demonstrated above the Specification teaches “wherein the portable terminal device ... sends to the base station an indication of a data rate based on the evaluation,” as recited by claim 22.

Applicants respectfully submit that the Specification further discloses that the indication of a data rate sent to the “control point device” by the recipient of the “poll” (or another message such as “Reservation Poll”) may be used by the “control point device” to set the data rate used during a “session communication,” as opposed to “signaling message” communication. *Id.* at page 70, lines 15-18. As discussed above, the Specification teaches, for example at page 12, lines 1-10 and page 258, lines 6-15, that the “premises LAN” communicates “voice signals” as “digital voice packets”. Therefore, the Specification teaches that payloads of “session communication” between the “control point device” and the “portable terminal device” may comprise “digital voice

packets". As previously discussed, the Specification teaches that a message sent by a "portable terminal device" in response to a "Poll" by a "control point device" may indicate a data rate. That data rate may be stored and selected by the "control point device" for later polling of the recipient by the "control point device." *Id.* at page 70, lines 20-22. The data rate used for such polling is then evaluated by the recipient and an indication of data rate is again sent to the "control point device", and may be used for "session communication" as described above. Applicants respectfully submit therefore, that the Specification teaches the required support for Applicants' claim feature "wherein the portable terminal device receives digital voice packets transmitted by the base station at a data rate selected by the base station based upon the indication of a data rate," as recited by claim 22.

Therefore, for at least the reasons set forth above, Applicants respectfully submit that, contrary to the assertion by the Office, the portion of claim 22 that recites "wherein the portable terminal device evaluates a message wirelessly received from the base station and sends to the base station an indication of a data rate based on the evaluation; and wherein the portable terminal device receives digital voice packets transmitted by the base station at a data rate selected by the base station based upon the indication of a data rate" was described in the original disclosure of the Application at filing, does not constitute new matter, and that this aspect of claim 22 is in compliance with 35 U.S.C. §112, first paragraph.

Based at least upon the above, Applicants respectfully submit that, contrary to the assertion by the Office, the portions of claim 22 identified by the Office were described in the original disclosure of the Application at filing, do not constitute new matter, and that these aspects of claim 22 are in compliance with 35 U.S.C. §112, first paragraph.

As previously noted, claims 30, 54, and 78 recite limitations similar to those of claim 22, and have been rejected under 35 U.S.C. §112, first paragraph, using similar arguments. Applicants respectfully submit the corresponding features of claims 30, 54, and 78 were also described in the original disclosure of the Application at filing, that the

cited portions of claims 30, 54, and 78 do not constitute new matter, and that these aspects of claims 30, 54, and 78 are in compliance with 35 U.S.C. §112, first paragraph.

With further regard to claim 78, the Office states, in part at page 7:

"Computer-readable medium" and the limitation "A computer-readable medium, having stored thereon a computer program having a plurality of code sections for operating a portable terminal device supporting voice communication via a wireless packet network, the code sections executable by a processor for causing the processor to perform the operations" was [sic, not] disclosed or defined in the original disclosure, thus the limitation is considered new matter.

Applicants have previously addressed this rejection. See Response to Office action of October 14, 2008 filed February 17, 2009 at pages 18-20. The remarks of Applicants response filed February 17, 2009 will not be repeated verbatim here, but are hereby incorporated by reference in their entirety.

**In response to Applicants' arguments filed February 17, 2009**, the instant Office action states, at pages 8-9:

- In the Remarks on pg. 19 of the Amendment, the Applicant contends that "computer-readable storage" or "computer-readable medium" is not new matter because mobile terminal 5523 inherently has a computer-readable medium that stores the software of the mobile terminal 5523 for execution by a processor.
- The Examiner respectfully disagrees. "Computer-readable medium" and the limitation "A computer-readable medium, having stored thereon a computer program having a plurality of code sections for operating a portable terminal device supporting voice communication via a wireless packet network, the code sections executable by a processor for causing the processor to perform the operations" was [sic, not] disclosed or defined in the original disclosure, thus the limitation is considered new matter.

Thus, the Office merely repeats the text of the rejection, verbatim, and does not specifically address the Applicants' arguments. Applicants offer the following additional arguments in support of Applicants' position that claim 78 is in compliance with 35 U.S.C. §112, first paragraph.

Initially, Applicants respectfully submit that it is not necessary for Applicants disclosure to teach that which would be expected to be known to those of ordinary skill in the relevant art at the time of the invention. Applicants respectfully submit that the use of processors, memory, and software in portable terminals and other portable devices was known to those of ordinary skill in the relevant art at the time of the invention. It is not necessary, therefore, for Applicants' disclosure to teach the use of such elements in that their existence and the details of their interconnection and use was well known to those of ordinary skill in the relevant art at the time of the invention. Further, Applicants' disclosure clearly states the use and storage of software in a portable terminal.

As evidence of the knowledge of one of ordinary skill in the relevant art at the time of the invention, Applicants searched the USPTO Patent Database and offer the following examples of published use of such elements in portable devices.

U.S. Patent No. 5,414,751 issued to Yamada on May 9, 1995 contains the following claim:

6. A **portable telephone apparatus**, comprising in combination:

radio means for communicating with a base station through a radio telephone channel;

**controller means, including a microprocessor, for controlling operation of said apparatus in accordance with an operational program;**

a connector for making a wired connection from said apparatus to a wired telephone line through a modem;

a digital signal processor for processing voice signals;

**an Electrically Erasable Programmable Read Only Memory (EEPROM) for storing a portion of said operational program;**

a first Random Access Memory (RAM) for temporarily storing control signals to be used for amending said operational program stored in said EEPROM;

**a second RAM for storing a portion of said operational program used for controlling operation of said digital signal processor;**

switching means, responsive to said controller means, for selectively connecting said second RAM to either said controller means or said digital signal processor, and wherein said second RAM is connected to said digital signal processor during a normal operational mode and to said controller means in a change mode wherein the second RAM's content is changed;

battery backup means for supplying power to said second RAM; and

amending means, responsive to control signals obtained through said connector, for amending said operational program for said controller, wherein said control signals are transmitted over said wired telephone line and received through said connector.

(emphasis added)

Thus, Yamada teaches a "portable terminal apparatus" having at least two processors (i.e., "a **controller means**" (including a "**microprocessor**") for "**controlling operation of said apparatus**" and a "digital signal **processor**" for "processing voice signals") (i.e., "processor") and at least two **memories** (i.e., "computer-readable medium") storing portions of "**operational programs**" for the "controller means" and "digital signal processor."

U.S. Patent No. 5,444,869 to Stricklin, et al. issued August 22, 1995 contains the following claim:

9. A battery-powered **portable radio communication device** comprising:

antenna means for intercepting radio signals comprising address and message information;

receiver means coupled to the antenna means for demodulating the intercepted radio signals;

decoder means coupled to the receiver means for decoding demodulated addresses;

**processor means coupled to the receiver means and to the decoder means for controlling the portable radio communication device;**

**memory means coupled to the processor means for storing software operating instructions and demodulated messages;**

data port means coupled to the processor means for communicating with an external computer;

a first processor element coupled to the processor means for detecting a signal at the data port means, the signal indicating that the external computer is coupled to the portable radio communication device; and

a second processor element coupled to the processor means for conserving battery power in the portable radio communication device by transferring control of the portable radio communication device from the processor means to the external computer, the second processor element comprising:

a transfer request element for requesting a transfer of control from the internal processor to the external computer; and

a transfer completion element coupled to the transfer request element for transferring control of functional elements listed in a response from the external computer.

(emphasis added)

Thus, Stricklin, et al. teach a “portable radio communication device” (i.e., a “portable terminal”) having a “**processor means**” (i.e., a “processor”) for “controlling” the “portable radio communication device” and “**memory means**” (i.e., “computer-readable medium”) coupled to the “**processor means**” for “**storing software operating instructions** and demodulated messages.”

U.S. Patent No. 5,369,798 issued November 29, 1994 to Lee contains the following claim:

12. An apparatus for saving power of a battery utilized in powering **a portable radio telephone** which is operable to scan two channels in one of two selectable bands divided from a cellular service band, said apparatus comprising:

**a memory** for storing a value of a fail flag and **for storing a program for operation of said portable radio telephone;**

**a main processor for initializing said memory by setting said value of said fail flag to zero, and for generating control signals;**

a logic control circuit for controlling a frequency synthesizer to tune a receiver to receive signals from a duplexer;

said receiver for providing output logic control signals to a receiving audio circuit, a data processor and said logic control circuit;

a transmitting audio circuit for receiving a transmitting control signal from said logic control circuit and for providing a signal to a transmitter to be transmitted through said duplexer;

**said main processor for processing data from said data processor according to said program stored in said memory** for enabling said logic control circuit to control said receiving audio circuit, said transmitting audio circuit, said synthesizer, said transmitter and said receiver;

said main processor being disabled for a first time interval in order to conserve power in said battery while said data processor operates to detect word sync data in an output signal from said receiver; and

said logic control circuit generating an interrupt signal for enabling said main processor to resume operation to determine whether said data processor has detected said word sync data.

(emphasis added)

Thus, Lee teaches of a “**memory**” for “**storing a program** for operation of said portable radio telephone” and a “**main processor**” for “processing data from said data processor **according to said program stored in said memory**” for “enabling said logic

control circuit to control said receiving audio circuit, said transmitting audio circuit, said synthesizer, said transmitter and said receiver [of the “portable radio telephone].”

Therefore, Applicants respectfully submit that the examples of U.S. patents provided above, which recite the use of processors, memory, and software in portable terminals and other portable devices demonstrates that such use was known to those of ordinary skill in the relevant art at the time of the invention, and that it is not necessary for Applicants’ disclosure to specifically describe the use of such elements in that their existence and the details of their interconnection and use was well known to those of ordinary skill in the relevant art at the time of the invention. Further, Applicants’ disclosure makes clear that memory and executable instructions of software are used in making the “portable terminal” of Applicants’ claims operate in the desired fashion.

Applicants respectfully submit that the Specification teaches, for example at page 222, lines 3-5, in regard to the “terminal 4664” and “terminal 4667” discussed above:

Moreover, the terminals 4664 and 4667 can be configured to operate running application software under the DOS 5, Windows or OS/2 operating system environments.

Applicants respectfully submit that one of ordinary skill in the relevant art at the time of the invention would immediately recognize that the ability of the “terminal 4664” and “terminal 4667” to “operate running application software under the DOS 5, Windows or OS/2 operating system environments” suggests the presence of at least one processor, and of memory accessible to that processor, to enable the “terminal 4664” and “terminal 4667” to run the “DOS 5”, “Windows”, or “O/S 2” operating systems.

Further, Applicants respectfully submit that the Specification teaches, at least at page 199, line 16 to page 201, line 11:

In addition, where possible, program code will be reduced to an interpretive form. **Common libraries of program objects (in an object code form, i.e., executable form) are stored at each network terminal, computer or access server.** Upon any request for an application program, for example, first, the sequence of calls to each program object is delivered along with a list of all program objects program object sequence. Upon receipt, the terminal



4667 might identify that **all program object executable code is stored locally, and, therefore, begins to execute the application program.** Otherwise, if certain program object executable is not locally stored, the terminal 4667 transmits a subsequent request. This time, the access device 4659 might not currently store the executable program object code. Thus, the access server 4659 routes the request downstream toward a device which does store the code. **Once located, the code is delivered upstream to the terminal 4667 for execution.**

(emphasis added)

Thus, the Specification teaches that each “network terminal” (e.g., “terminal 4664”, “terminal 4667”, “terminal 5523”), “computer,” or “access server” **stores** common libraries of “**program objects.**” It also teaches that if, upon any request for an “application program” the “network terminal” determines that all “program objects” are already stored locally, the “network terminal 4667” **begins to execute the application program.** If, however, a needed “program object executable” is not stored locally, the needed “program object executables” is requested and delivered to the “network terminal” **so that it may begin execution.** Therefore, in light of at least this portion of Applicants’ disclosure, Applicants respectfully submit that, upon reading just this portion of the Specification, one of ordinary skill in the relevant art would immediately recognize that the “network terminal” (e.g., “terminal 4664”, “terminal 4667”, “terminal 5523”) has a processor and storage for the instructions of a “program object executables” so that the “network terminal” can execute the desired “application program” that makes the “network terminal” operate as desired.

Therefore, for at least the reasons set forth above, Applicants respectfully submit that, contrary to the assertions by the Office, Applicants’ disclosure complies with 35 U.S.C. 112, first paragraph, and that although the term “computer-readable medium” may not explicitly appear in the disclosure, one of ordinary skill in the relevant art would unquestioning recognize that the Application does disclose “[a] computer-readable medium, having stored thereon a computer program having a plurality of code sections for operating a portable terminal device supporting voice communication via a wireless packet network, the code sections executable by a processor for causing the processor to perform the operations...,” as claimed” Therefore, Applicants respectfully request

that the rejection of claims 78-86 under 35 U.S.C. §112, first paragraph, be reconsidered and withdrawn.

## **II. Claims 54-59, 78-86, 93-95, And 126-129 Are In Compliance With 35 U.S.C. §112, ¶2**

Claims 54-59, 78-86, 93-95, and 126-129 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicants respectfully traverse the rejection.

With regard to independent claim 58, the Office states, in part at page 8:

In lines 10-11, the limitation "enabling conversion of sound to digitized voice information" renders the claim indefinite. The limitation is not an active positively recited step. The examiner recommends the limitation to read -- converting sound to digitalized voice information--.

Claim 78 was rejected using a similar rationale.

Applicants respectfully disagree that the use of the word "enabling" in the manner recited by claim 54 renders the claim indefinite. As an initial matter, Applicants do not agree that "enabling" is not an "active positively recited step," as asserted by the Office. Further, Applicants respectfully submit that the Office fails to provide any support for this conclusory statement. Further still, the Office has not identified, nor can Applicants find anything in 35 U.S.C, 37 C.F.R., and/or the M.P.E.P. that states that use of the word "enabling" in the manner used in claim 54 renders a claim indefinite.

Indeed, a search of the USPTO Patent Database shows that the word "enabling" occurs in the claims of more than 106,000 issued U.S. patents. The Applicants now provide the following examples of claims in issued U.S. patents that use the word "enabling" in a manner similar to that of claim 54:

U.S. Patent No. 7,558,602, issued on July 7, 2009, contains the following claim:

1. A method of wireless communication between a plurality of subscribers and base station equipment having a

plurality of antennas of a wireless communication system,  
the method comprising:

providing a plurality of schedulers at said base station  
equipment for independently scheduling said plurality of  
subscribers;

associating each scheduler of said plurality of  
schedulers with said base station equipment and an antenna  
of said plurality of antennas to receive channel conditions  
from said plurality of subscribers;

**enabling** said plurality of schedulers to schedule said  
plurality of subscribers based on said channel conditions,  
wherein scheduling being to said plurality of subscribers  
during at least partially overlapping time periods over  
downlink communication channels;

using said plurality of antennas associated with said  
base station equipment for scheduling said plurality of  
subscribers in the wireless communication system;

**enabling** a service provider to increase at least one  
of capacity and throughput of the wireless communication  
system in response to using said plurality of antennas  
associated with said base station equipment for scheduling,  
wherein the wireless communication system is a high data  
rate system; using said plurality of schedulers and said  
plurality of antennas associated with said base station  
equipment to transmit information over said downlink  
communication channels during at least partially overlapping  
time periods; and

identifying one or more subscribers of said plurality of  
subscribers with a set of channel conditions that satisfy a  
criterion set by said service provider for said plurality of  
schedulers.

(emphasis added)

U.S. Patent No. 7,558,564, issued July 7, 2009, includes the following claim:

80. A method according to claim 77 further  
comprising:

transferring, by an exchange of messages, a default  
password to a laptop associated with at least one remote  
asset when said user has forgotten an access password or  
when said password does not work, wherein the transfer is  
done either directly or via a remote server; and

**enabling** an authorised and authenticated user to gain access to data based on the default password.

(emphasis added)

U.S. Patent No. 7,558,798, issued July 7, 2009, includes the following claim:

7. A method comprising:

powering, using a second battery, a battery check circuit for testing a power level of a first battery upon system startup regardless of a power state of the first battery;

testing whether the power level of the first battery is less than a first level responsive to a stimulus that indicates application of power is desired but before power is provided;

preventing the first battery from powering an electronic component if the power level is less than the first level; and

**enabling** circuitry to provide power from the first battery to the electronic component if the power level is at least the first level.

U.S. Patent No. 7,558,213, issued July 7, 2009, contains the following claim:

9. An article of manufacture storing machine readable instructions which, when executed, cause a machine to:

obtain a first parameter representative of a digital subscriber line (DSL) performance characteristic;

collect additional parameters representative of historical values of the DSL performance characteristic; and

determine a DSL configuration parameter based on the first and the additional parameters, wherein the DSL performance characteristic is a count of receiver errors over a time period; wherein the DSL configuration parameter represents interleaving enablement; and wherein the machine readable instructions, when executed, cause the machine to determine the DSL configuration parameter based on the first and the additional parameters by:

determining a maximum in the first and the additional parameters; and

**enabling** interleaving if the determined maximum is greater than a threshold.

(emphasis added)

Applicants respectfully note that the four examples reproduced above were found in a brief review of approximately 20 U.S. patents taken from those issued on a single day, July 7, 2009. Therefore, in view of the current acceptance by the Office of the use of the word “enabling” in issued U.S. patents, including four examples having usage similar to the usage of rejected claims 54 and 78, Applicants respectfully submit that the use of the word “enabling” in the manner of claims 54 and 78 does not render claims 54 and 78 indefinite, that the language of claims 54 and 78 is both clear and definite, and is indeed in compliance with 35 U.S.C. §112, second paragraph. Applicants respectfully submit that the language of claim 78 was rejected using the same rationale used for the rejection of claim 54, and that the language of claim 78 is therefore also definite, for at least the same reasons set forth above. Therefore, for at least the reasons set forth above, Applicants respectfully request that the rejections of claims 54 and 78, and the rejections of any claims that depend therefrom, under 35 U.S.C. §112, paragraph two, be reconsidered and withdrawn.

## Conclusion

In general, the Office Action has made various statements regarding the claims and the cited references during the course of prosecution that are now moot in light of the above. Thus, Applicants will not address such statements at the present time. However, the Applicants expressly reserve the right to challenge such statements in the future should the need arise (e.g., if such statements should become relevant by appearing in a rejection of any current or future claim).

The Applicants believe that all of pending claims 22-38, 54-59, 78-95, and 122-129 are in condition for allowance. Therefore, allowance of claims 22-38, 54-59, 78-95, and 122-129 is respectfully requested.

The Commissioner is hereby authorized to charge any fees required by this submission to the Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Should the Examiner disagree or have any questions regarding this submission, the Applicants invite the Examiner to telephone the undersigned at (312) 775-8000 to resolve any issues.

Respectfully submitted,

Dated: July 22, 2009  
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By /Kevin E. Borg/  
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